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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,841	01/29/2004	Kheng Chiong Tay	07044.0003	2330

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EXAMINER

WARREN, MATTHEW E

ART UNIT	PAPER NUMBER
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2815

MAIL DATE	DELIVERY MODE
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12/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/765,841

Applicant(s)

TAY ET AL.

Examiner

Matthew E. Warren

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 1977.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 10-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 10-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to the Amendment filed on September 28, 2007.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 and 10 are rejected under 35 U.S.C. 102(a) as being anticipated by Hsu et al. (US Pub. 2004/0178483 A1).

In re claims 1 and 10, Hsu et al. shows (fig. 2) an optoelectronic component based on a surface mount technology, said optoelectronic component comprising: an electrically conductive metal frame (13, 14) to form a base for an assembly; at least an optoelectronic chip (30) mounted on the base; and an electrical connection (31) between the optoelectronic chip and the electrically conductive frame (14) by a wiring means (31); soldering terminals (bottom of 13, 14), provided by the base, are part of the electrically conductive frame and are exposed at bottom and side portions of the component; a series of wings grooves and wings (131, 141) are crafted in the electrically conductive frame to enhance anchorage and minimize the occurrence of delamination; wherein the said electrically conductive frame is entirely encapsulated with a

hard transparent or translucent resin material (40) to enable optical radiation to be transmitted or received via the optoelectronic component. The soldering terminals do not extend beyond an outline of the encapsulation material.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 10, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fjelstad (US 6,583,444 B2) in view of Minamio et al. (US 6,900,524 B1).

In re claim 1, Fjelstad shows (fig. 8B) an optoelectronic component based on a surface mount technology, said optoelectronic component comprising: an electrically conductive frame (326) to form a base for an assembly; at least an optoelectronic chip (332) mounted on the base; and an electrical connection (344) between the optoelectronic chip and the electrically conductive frame (326) by a wiring means (344); soldering terminals (328) which are part of the electrically conductive frame and are exposed at bottom and side portions of the component; wherein the said electrically conductive frame is entirely encapsulated with a hard transparent or translucent resin material (348) to enable optical radiation to be transmitted or received via the optoelectronic component (col. 10, lines 6-39, col. 11, lines 15-35). The soldering

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terminals (328) do not extend beyond an outline of the encapsulation material. Fjelstad shows all of the elements of the claims except the grooves and wings in the base material to enhance anchorage which Minamio et al. discloses (abstract). Minamio shows (fig. 1) grooves (19) and wings (next to grooves) formed in the metal frame/base member (13). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the package of Fjelstad by forming grooves and wings in a base layer as taught by Minamio to enhance adhesion of subsequently adhered devices and components.

In re claim 10, Fjelstad discloses that the electrically conductive material is metal (col. 10, lines 11-39).

In re claim 11, Fjelstad shows (fig. 8A) a lens structure (360) incorporated as part of an encapsulation material.

In re claim 13, Fjelstad shows (fig. 8B) a cavity (368) is formed in the electrically conductive frame (326) and used to attach the optoelectronic chip (332) within said cavity and serve as a reflector (col. 11, lines 18-23).

Claims 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fjelstad (US 6,583,444 B2) in view of Minamio et al. (US 6,900,524 B1) as applied to claim 1 above.

In re claim 12, Fjelstad and Minamio show all of the elements of the claims except the multiple lens structure to be part of the encapsulation material, however multiple lenses may be required for multiple devices or to achieve a very specific focal

property. It would have been obvious to one of ordinary skill in the art to use three, four, etc., lenses to focus light into to multiple devices. It has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). See also MPEP 2144.04 VI. (B). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the package of Fjelstad and Minamio by using multiple lenses to provide a specific optical property of light from an optoelectronic device.

Response to Arguments

Applicant's arguments filed with respect to claims 1 and 10-13 have been fully considered but they are not persuasive. The applicant primarily asserts that the prior art references do not show all of the elements of the claims, specifically Hsu, Fjelstad, and Minamio do not disclose that the soldering terminals of the electrically conductive frame are exposed only at a bottom and side portions of the component. The examiner believes that the references show all of the elements of the claims. With respect to the 35 USC 102 Rejection over Hsu, the applicant asserts that the soldering terminals of Hsu are only exposed at the four edges of the package and not at the bottom and sides only. However, as shown in Hsu (fig. 2) the four corners of the package includes the sides and bottom of the package. The soldering terminals are not exposed anywhere else in the package. Thus Hsu discloses the limitations in question. With respect to the 35 USC 103 Rejection over Fjelstad and Minamio, the applicant asserts that the soldering terminals of Minamio are only exposed at the four edges of the package and

not at the bottom and sides only. However, as shown in Minamio (fig. 2), which cures the deficiencies of Fjelstad, the four corners of the package includes the sides and bottom of the package. The soldering terminals are not exposed anywhere else in the package. Thus, Fjelstad and Minamio discloses the limitations in question. The prior art references show all of the elements of the claims and the rejections above are proper.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Warren whose telephone number is (571) 272-1737. The examiner can normally be reached on Mon-Thur and alternating Fri 9:00-5:00pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Parker can be reached on (571) 272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew E. Warren

December 10, 2007


Primary Examiner